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Achievement Goals, Perceived Ability and Active Search for Information

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Abstract

The purpose of this investigation was to test the predictive value of the achievement goals theory on voluntary information selection. In a first study, 86 subjects could assess their performance after a motor test. The results showed that ego-oriented subjects chose normative information if they had a high perceived ability, and rejected information if they had a low one; task-oriented subjects chose objective information regardless of their perceived ability. In a second study, 108 subjects could use information during a training period. Data confirmed the prior results for ego-oriented subjects, and showed that task-oriented subjects preferred task information if they had a low perceived ability and objective information if they had a high one.

Key words:
achievement goals
perceived ability
search for information

One of the fundamental contributions of achievement goals theory (e.g., Ames, 1984, 1992a, 1992b; Dweck, 1986; Elliott & Dweck, 1988; Heyman & Dweck, 1992; Maehr, 1984; Maehr & Braskamp, 1986; Nicholls, 1984, 1989) to the understanding of the learner's motivation is its high explanatory and predictive value in individual cognitions and behaviours which take place in educational contexts. In this view, the behaviours are conceived as directed towards motivational goals which can be differently categorised. So far, two types of goal have been analysed in accomplishment contexts. Task involvement is evidenced when behaviour is motivated by the desire to acquire task mastery, the feeling of competence depends upon self-referenced criteria, and on a process of temporal

comparison. Mastery of the proposed situation and personal progress are experienced as success by the subject who pursues this type of motivational goal. Besides, when the individual's behaviour is motivated by the desire to outperform others and avoid displaying inferiority, ego involvement is evidenced. In this case, the feeling of personal competence is only established by a normative comparison process and by using social referenced criteria. The feeling of success requires the demonstration of a superior normative ability, either by obtaining an improved result, or by obtaining an identical result with less effort.

This theoretical framework supports the idea of a rational link between achievement goals and the learning behaviours of individuals, whether in the academic or sporting field (e.g., Ames, 1992a; Cury, Biddle, Sarrazin & Famose, in press; Duda, 1992; Dweck, 1986; Famose, Sarrazin & Cury, 1995; Heyman & Dweck, 1992; Nicholls, 1989; Roberts, 1992). In particular, the choice of a task or difficulty level (e.g., Nicholls, 1984; Sarrazin, Famose, & Cury, 1995), the chosen effort level (e.g., Duda, Smart, & Tappe, 1989), perseverance (e.g., Elliott & Dweck, 1988; Rudisill, 1990) and intrinsic interest (e.g., Cury et al., 1996) are behaviours which are influenced by the interaction between the goal pursued by the individual (i.e., task involvement vs. ego involvement) and the perception of his or her personal competence (i.e., high vs. low) faced with the requirements of the situation. We think as Butler (1992, 1993) that in a situation where achievement is valued, the nature of achievement and the level of perceived ability should influence identifiable attitudes towards the information. In a performance evaluation context, or during a learning process, active search for information seems to be a behaviour which is strongly linked to achievement, and whose consequences are of great importance for learning. As underlined by Butler (1993), most of the studies which have tried to pinpoint the predictive value of achievement goal theory in learning behaviours have been directed towards the analysis of how the subjects react to imposed information. Cognitions, affects and learning behaviours are thus induced from a series of prescribed and identified signs. However, natural achievement situations do not always inform the individual in a clear-cut way of what is to be done, nor of the means to check the goal realisation. Confronted with a lot of external signs, the individual must then involve themselves in personal research behaviour (Lazarus, 1982; Nuttin, 1980) to transform this information into an understandable and personal event.

For Butler (1993), the studies which have been carried out in the achievement field have allowed the identification of three principal types of information: 1) *task information*, whose purpose is to clarify the task requirements, and the necessary strategies for its accomplishment; in others words, it is about signs which suggest solutions to the task's problem, and which make the goal more understandable and accessible, 2) *objective information* indicating the degree to which the performance reflects the task

demands, advises the subject about goal accomplishment, and sometimes the impact of the obtained result, 3) *normative information* indicating the relative level of performance to the subject in relation to a reference group.

The purpose of this research is to test goal theory assumptions, linked with the attitude adopted by the subject when faced with these three types of information (Butler, 1992, 1993) in a motor context. It is predicted that when the individual is task involved, the general aim of his or her behaviour is to learn and solve a problem. From that point, the cognitions are focused towards this aim (Ames & Ames, 1984), and if the performance has to be evaluated, no differentiated ability conception is used (Nicholls, 1984, 1989) and the subject engages in a process of temporal comparison (e.g., Ames & Ames, 1981). Therefore, the subject should be attracted by the objective information which allows him or her to establish a comparison between two succeeding performances. On the one hand, using the attributional model, Ames and his colleagues (Ames, 1983; Ames & Lau, 1982) ascertain that failing subjects look for help if they think that their difficulties are not due to low ability or to other non-controllable factors, and when they think that their performance could improve with more effort. As indicated by Nicholls's theory (Nicholls, 1984, 1989), task involvement preferentially induces attributions to effort. Consequently, the attributional mechanism mediates the effect of task involvement goal on the search for help. In these conditions, task involvement encourages the search for help and task information by suggesting to subjects with difficulties, (i.e., after failure or with a low-perceived ability) that it is an efficient strategy to master the task. On the other hand, when a subject is ego-involved, the focus remains on the competence level. The aim of his or her behaviour is to establish superiority over others and avoid displaying incompetence. In these conditions, if the performance has to be evaluated, the own ability is questioned. The subject uses, in this case, the more differentiated conception of ability, and engages in a process of social comparison (Ames & Ames, 1981, 1984). Consequently, normative information is sought as a more relevant test of ability. But this preference should be tempered by the competence level since when individuals are focused on outperforming others, perceived ability becomes a significant mediator of achievement behaviour (Covington & Omelich, 1984). A low expectation of normative superiority should induce an evasive behaviour faced with information confirming this fear, whereas an individual who has great confidence should look for information which allows to corroborate these hopes. Besides, in this motivational state, the subject generally attributes the result of his or her actions to ability (Nicholls, 1984, 1989), a stable and uncontrollable factor; in these conditions, external help is considered as useless. For an ego involved subject, the self-improvement function of task information is not particularly valued. Subjects who have high confidence in their abilities find the answer to their desire of self-valuation in normative information. They do not feel the need for help and their interest for

task information is limited as their goal is satisfied without additional learning, as demonstrated by Butler (1993). This depreciation of external help is doubled, concerning individuals who have doubts as to their ability, with a protective strategy of self-esteem which depends on identical processes to those described previously. To ask for help by the intermediary of a task information, is in a way to acknowledge ones' weaknesses (DePaulo, Nadler, & Fisher, 1983), which subjects wish to avoid; besides, to acquire information in order to progress requires belief in the virtues of effort and accept consented devotion; or a reduction of effort is considered as a strategy to maintain self-esteem (Covington & Beery, 1976; Covington & Omelich, 1979; Elliott & Dweck, 1988; Frankel & Snyder, 1978) or as a consequence of task devalorisation by the subject (Jagacinski & Nicholls, 1990). Henceforth, we can consider that an individual pursuing this type of goal devaluates task information.

Study 1

The main objective of this study was to test the predictive value of achievement goals, in combination with perceived ability, in the choice of information used by the subject to evaluate their performance. It was expected that when the subject was task-involved, he should engage himself in a temporal comparison process (all subjects are male). Consequently, he had to be preferentially attracted by objective information which allowed him to establish a comparison between two subsequent performances, whatever his perceived ability level. Besides, when he was ego-involved, he had to engage himself in a social comparison process. Confident of his own abilities, he had to search for normative information to confirm his feeling of superiority. On the other hand, if he felt unskilled, he should avoid information confirming his low competence.

Method

Experimental plan. The study was structured according to a 2 x 2 design: goal (i.e., ego involvement vs. task involvement) x perceived ability level (i.e., high vs. low). Dependent variables consisted of the type of information chosen by the subject to evaluate his performance and the perception of situationally-induced motivational goals.

Sample. Eighty-six male subjects, aged 12-14 years (mean = 12.8), were selected from 320 volunteers for the study of college pupils, according to two questionnaires appraising their dispositional motivational profile and their perceived competence level in basketball. This study was presented by the experimenter as a survey on the student's representations of sports and basketball in particular, and as a awareness campaign in a new form of practice (i.e., the dribble course) of this sporting activity, during a physical

education lesson. In this way, the subscription of the subjects to the study was founded on the interest and curiosity engendered by this activity. To set up the sample, the experimenters in the first place used percentile scores for each subscale of the motivational orientation questionnaire. A subject could be identified as being high ego-oriented (E^+) or low ego-oriented (E^-) if his score on the subscale which evaluates ego orientation was situated respectively in the superior or inferior third past of the distribution. In an identical way, a subject could be identified as high task-oriented (T^+) or low task-oriented (T^-). Secondly, the experimenters considered that a subject had a high perceived ability (PA^+) or low (PA^-) if the average of the answers to the basketball perceived ability questionnaire was respectively superior or inferior to 6. This procedure allowed the constitution of four experimental groups:

1. a group of subjects (N=21) identified as $E^+T^-PA^+$
2. a group of subjects (N=21) identified as $E^-T^+PA^+$
3. a group of subjects (N=19) identified as $E^+T^-PA^-$
4. a group of subjects (N=20) identified as $E^-T^+PA^-$.

The experimenters explained to the non-selected subjects that the material conditions did not permit all students to test the course, and that some individuals had been retained after a draw.

Experimental task. The subject had to realise two timed tests on a dribble ability basketball course, spaced by a five minutes training session. On completing his second attempt, the subject had the choice of obtaining some information on his performance.

Measures. *The Motivational orientation* was assessed by the Perception of Success in Sport Questionnaire (PSSQ) developed by Durand, Cury, Sarrazin & Famose (in press). *The basketball perceived ability* was assessed by the Specific Perceived Ability Questionnaire (SPAQ) developed by Famose, Sarrazin & Cury (1994). In the present study, the alpha internal consistency coefficient (Cronbach, 1951) of the task orientation and the ego orientation subscales of the PSSQ and of the SPAQ scale were respectively .75, .82 and .88. Moreover, the two subscales of the PSSQ proved to be independent (r=.09, p>.05). So as to assess *the perception of situationally-induced motivational goal*, the subject had to situate himself by placing a vertical line next to the expression "do not agree at all" or the expression "totally agree" in reaction to a statement symbolising a task-involved context (i.e., "In your opinion, we can say that the purpose of this experiment is to test a learning method for making progress in dribbling"), and an ego-involved context (i.e., "In your opinion the purpose of this experiment is to rate each of the participants against each other in relation to their technical level in dribbling"). Basing their experiments on the work of Anderson (1976), the experimenters proposed to the subjects a type of answer allowing the use of a defined measurement in terms of continuous numerical variable. The evaluation device of *information choice* consisted in

pointing out, without the subject's knowledge, the type of information chosen. At the end of the second test, the experimenter indicated to the subject the realised time and specified to him that he could either know the normative value of his performance by choosing an envelope containing comparison tables (i.e., *search for normative comparison*), or know the time realised during his first attempt (i.e., *search for objective information*) and calculate the percentage progress realised through a conversion formula contained in a second envelope, or leave the room without using either of the two envelopes (i.e., *information refusal*). After the presentation of the two envelopes, the experimenter left the room temporarily, reminding the subject that he only had a short in which to obtain this information. During that period, the subject was being observed secretly in a room adjoining the test-room. The validity of the information presentation process submitted to the subject's choices had been testified during a preliminary test. In this past study, the experimenters ensured that the subjects attributed functions which were in accordance with their experimental definitions to information proposed to them.

Procedure. The experimenter presented orally, and through an active demonstration, the basketball dribbling course. The subject was placed in conditions conforming to his motivational profile so as to reinforce the dispositional aspect and to guarantee the viability of the pursued goal: a subject belonging to one of the groups $E^+T^-PA^-$ or $E^+T^-PA^+$ was placed in a context inducing ego-involvement; a subject belonging to one of the groups $E^-T^+PA^+$ or $E^-T^+PA^-$ was placed in a context inducing task-involvement. In the context inducing ego-involvement, the experimenter indicated to the subject that the aim of the study was to evaluate their basketball dribbling ability; the course was presented as a test which allowed the ranking of the subjects. Moreover, the subject performance was recorded on video, and was subsequently viewed collectively. In a context inducing task-involvement, the subject was told that the purpose of the experiment was to test the pedagogical quality of a course so as to be able to use it in learning basketball at school; the aim of the subject was to check if he could rapidly improve in dribbling, by using a "new, quicker and more efficient method". In order to ensure the comprehension of the task, the experimenter then invited the subject to try the course and recorded the time taken during that trial; no feedback was given. The subject then had five minutes to train on the course if he desired. Finally, he was invited to perform a second timed attempt. After the subject's performance, the experimenter communicated the time to him, and specified that he could, if desired, obtain additional information about the value of his performance, or leave the room immediately. After having presented him the envelopes he would leave temporarily and record the choice made secretly. During a post-test session with the subjects, parents, and in the presence of teachers, emphasis was laid on the purpose of the experiment, and the arbitrary character of the results obtained, so as to minimise the eventual impact.

Results

Preliminary results. Some subjects (*N*=5) made the effort to calculate the value of their performance according to the two possible choices, in spite of incitements to choose formulated by the experimenter, and were eliminated from the statistical treatment. Data analysis (i.e., Hartley's tests) relative to the perception of the achievement context revealed similar variances between the four comparison groups, for the two psychological dimensions. T students' tests for independent samples revealed that subjects placed in an experimental condition inducing ego involvement perceived this motivational dimension ($t_{(79)}$=9.82 , p<.0001) more strongly (*M*=23.98, *SD*=5.12) than subjects placed in a situation inducing a task involvement (*M*=13.97, *SD*=4.8). Similarly, subjects placed in a situation inducing a task involvement perceived the motivational dimension ($t_{(79)}$=8.17 , p<.0001) more strongly (*M*=20.9, *SD*=4.25) than subjects placed in an experimental condition inducing an ego involvement (*M*=12.15, *SD*=4.8). These results confirmed the validity of the experimental motivational induction.

Effect of the experimental plan on the type of information chosen by the subject. The chi-square on the whole of the sample showed that the distribution of the subjects (see Table 1) in relation to the motivational goal and to individually perceived ability significantly deviated from the theoretical distribution ($\chi^2_{(6,\ N=81)}$=31.3, p<.0001). The analysis of the post-hoc cell contributions to chi-square (i.e., computation of adjusted residuals) revealed that

Table 1
Subjects distribution for active search for information as a function of the motivational goal and the individual level of perceived ability (study 1)

Motivational goal	Individual level of perceived ability	Subjects distribution for active search for information		
		Information refusal	Normative information	Objective information
E^+T^- [a]	PA^- [c]	10	8	1
E^+T^- [a]	PA^+ [d]	5	12	4
E^-T^+ [b]	PA^- [c]	2	4	14
E^-T^+ [b]	PA^+ [d]	1	7	13
	Total :	18	31	32

[a] High ego-oriented, low task-oriented motivational goal
[b] Low ego-oriented, high task-oriented motivational goal
[c] Low-level of perceived ability
[d] High level of perceived ability

the subjects from the $E^+T^-PA^+$ group were drawn to normative information (2.07) and rejected objective information (-2.23); the subjects from $E^+T^-PA^-$ group were oriented toward information refusal (3.64) and rejected objective information (-3.49); the subjects from $E^-T^+PA^-$ group chose objective information (3.21); finally the subjects from $E^+T^-PA^+$ group selected objective information (2.44), and rejected information refusal (-2.24).

Discussion

These results partly confirm the formulated hypotheses. A task-involved subject evaluates his performance in accordance with a non-differentiated conception of ability (Nicholls, 1984, 1989) and is driven by a temporal comparison process (Ames & Ames, 1981, 1984); consequently, he values the information which allow him to compare his two performances, regardless of his perceived ability level. So, he significantly chooses the task information in accordance with formulated hypotheses and with Butler's results (Butler, 1992, 1993). An ego-involved subject evaluates his performance in relation to a differentiated conception of ability (Nicholls, 1984, 1989); consequently, driven by a social comparison process (Ames & Ames, 1981, 1984), he values normative information, and rejects task information. If he has a high perceived ability, he expects his performance to be normatively high and searches for the information which should confirm his feeling of competence. These results match with Butler's data (Butler, 1992, 1993). However, against the hypotheses, subjects from the $E^+T^-PA^-$ group did not all give up the search for normative information. The protection of self-esteem (e.g., Goetals & Darley, 1986; Strube & Roemmele, 1985) identified in this type of motivational state is only partially evidenced. If some of the subjects have significantly chosen to refuse all information about their performance, as predicted, other individuals have not hesitated to search for normative information. Indeed, although the behaviour is not significant, the prior statistical observations cannot allow us to conclude that this group reject this type of information (i.e., normative information). For Nicholls (1989), the ego involved subjects with a low perceived ability could choose not to renounce the establishment of their competence if they were not completely persuaded to demonstrate incompetence. The absence of competence feedback, the relative confidentiality of the self-evaluation, and the absence of a precise time for attaining ratification a normatively average difficulty level are experimental factors which should have contributed to limit an identifiable psychological strategy in this type of motivational state.

Study 2

The problem raised in this study was that of the strategy chosen by the subject towards learning, relating to his motivational state and his level of perceived ability. This strategy could be highlighted by his information

choice. It was expected that when the subject was task involved, he had to be tempted by his progress evaluation by choosing objective information. Similarly, with the results of the previous experiment, but experimentally constrained by a unique choice, he could display as a priority a need for help, in order to further progress by choosing task information if he had a low perceived ability. When he was ego involved, the subject had to look for normative information if he felt confidence in his abilities. However, if he had a low success expectation, he had to avoid all information confirming his low competence.

Method

Experimental plan. The study was structured according to a 2 x 2 design: goal (i.e., ego involvement vs. task involvement) x perceived ability level (i.e., high vs. low). Dependent variables consisted of the post-performance success expectation which was prior to the choice of the information, the type of information chosen by the subject to evaluate his performance and the perception of situationally-induced motivational goals.

Sample. One hundred and eight male subjects, aged 12-14 years (mean=13.2), were selected from 440 volunteers for the study of college pupils with regards to their motivational profile and their perceived competence level in basketball. Four experimental groups were formed by following an identical procedure to that in the first study:

1. a group of subjects (N=29) identified as $E^{+}T^{-}PA^{+}$
2. a group of subjects (N=27) identified as $E^{-}T^{+}PA^{+}$
3. a group of subjects (N=27) identified as $E^{+}T^{-}PA^{-}$
4. a group of subjects (N=25) identified as $E^{-}T^{+}PA^{-}$.

In a similar way as in study 1, the experimenters explained to the non-selected subjects the reasons for their non-participation in all the test procedure.

Experimental task. The task was identical to that used for study 1.

Measures. The *motivational orientation, basketball perceived ability* and the *perception of situationally-induced motivational goal* were assessed by identical tools and procedures to the ones used in study 1. In the present study, the alpha internal consistency coefficient (Cronbach, 1951) of the task orientation and the ego orientation subscales of the PSSQ and of the SPAQ scale were respectively .80, .81 and .83. Moreover, the two subscales of the PSSQ proved to be independent (r=-.10, p>.05). To assess the *post-performance success expectation*, the subject had to self-determine by using an identical procedure to that used the study 1, with regards to the following affirmation: "After having realised this course, I have a strong feeling of success." The procedure to assess the *information choice* was on the whole identical to that in study 1. In line with the previous procedure, the subjects in the present study could select according to the chosen envelope: either a *normative information*, or an *objective information*, or *refuse all information*; in addition they had access to a series of pieces of advice and small simple exercises immediately realisable on the course to progress (i.e., *task information*) contained in another envelope. After an introduction to the contents of the three envelopes, the experimenter left the room temporarily, reminding the subject that he only had a limited time to choose between these piece of information before starting the second training session. During that period, the subject was being observed secretly in an adjoining room to the test-room. The validity of the presentation process of information submitted to the subject's choice had been testified during the preliminary test mentioned previously.

Procedure. As in study 1, the experimenter presented the course and placed the individually tested subject in a trial condition according to his motivational profile. The subject realised a first timed attempt to ensure the understanding of the task; the time was written on an envelope, but no feedback was given to him. He then had five minutes training, then realised another test; the experimenter gave him the realised time, then called upon him to evaluate his feeling of success in relation to his immediate performance. Secondly, it would be specified to him that he could acquire other information about his performance or about the task. The experimenter would subsequently leave the room for a while for technical reasons, then return to point out to the subject that he again had five minutes training, before realising the last test. As in study 1, a post-test session was organised by the experimenters.

Results

Preliminary results. Identically to study 1, some subjects (N= 5) made the effort of calculating the value of their performance according to the several possible choices in spite of encouragement to choose given by the experimenter and were eliminated from all analyses. The data analysis showed that the initial experimental plan displayed an unequal variance between the groups, concerning the expectation of post-performance success ($Hartley_{Fmax}$=5.02, p<.0002) and the perception of ego-involvement induced by the context ($Hartley_{Fmax}$=4.34, p<.0035); it was not the case for the perception of the task-involvement induced by the context. A t test on independent samples ($t_{(100)}$=10.04, p<.0001) showed that the subjects who were placed in test conditions inducing a task-involvement perceived this motivational dimension more strongly (M=24.48, SD=5.65) than subjects placed in a situation inducing ego-involvement (M=12.40, SD=6.44). Mann-Whitney U test (U=55.5, p<.0001) showed that subjects placed in test conditions inducing an ego-involvement perceived this dimension more

strongly than subjects placed in test conditions inducing a task-involvement. These results support the validity of the experimental motivational induction.

Effect of the experimental plan on the type of information chosen by the subject. The chi-square on the whole of the sample showed that the distribution of the subjects (see table 2) in relation to the motivational goal and to the individual perceived ability significantly deviated from the theoretical distribution ($\chi^2_{(9,\ N=102)}=72.33$, $p<.0001$). The analysis of the post-hoc cell contributions to chi-square (i.e., computation of adjusted residues) revealed that the subjects from the $E^+T^-PA^+$ group tended for normative information (5.09) and rejected objective information (-2.13) and task information (-3.27); the subjects from the $E^+T^-PA^-$ group steered towards information refusal (3.94) and rejected task information (-2.36); the subjects from the $E^-T^+PA^-$ group chose task information (5.36), and excluded normative information (-3.79); the subjects from the $E^-T^+PA^+$ group selected objective information (3.24), and avoided normative information (-2.04) and refusal information (-2.05).

Table 2

Subjects distribution for active search for information as a function of the motivational goal and the individual level of perceived ability (study 2)

Motivational goal	Individual level of perceived ability	Subjects distribution for active search for information			
		Information refusal	Normative information	Objective information	Task information
E^+T^- [a]	PA^+ [d]	3	19	5	0
E^+T^- [a]	PA^- [c]	8	9	6	2
E^-T^+ [b]	PA^+ [d]	0	4	16	6
E^-T^+ [b]	PA^- [c]	0	0	9	15
	Total:	11	32	36	23

[a] High ego-oriented, low task-oriented motivational goal
[b] Low ego-oriented, high task-oriented motivational goal
[c] Low level of perceived ability. [d] High level of perceived ability

Effects of the experimental plan on the post performance expectation-choice of information relation. Kruskal-Wallis by ranks showed a significant effect ($H_{(2,N=102)}=60.404$, $p<.0001$) of the choice of information factor (objective information vs. task information vs. normative information vs. information refusal) on the post performance expectation level. Mann-Whitney U showed ($p<.0001$ whatever the comparison) that the subjects who refused all task information thought having not succeeded well on their course than subjects who had chosen task information, objective information or normative information. Moreover, subjects who chose task information thought not having well succeeded in their course than subjects who had chosen objective or normative information. Finally, Mann-Whitney U showed: (a) within the $E^+T^-PA^-$ group, those who had chosen normative information thought they had been more successful in the course than those who refused information; (b) within the $E^-T^+PA^-$ group, those who chose objective information thought they had been more successful than those who had chosen task information; (c) within the $E^-T^+PA^+$ group, those who chose objective information thought they had been more successful than those who had chosen task information.

Discussion

The analyses confirm our hypotheses, and validate results from Study I. A task involved subject is engaged in a learning strategy, to progress and master the situation which is evidenced by the type of information choice. Consequently, he tends to prefer task information, or objective information depending on his priorities. If he has a low perceived ability he can look for help (Ames, 1983; Ames & Lau, 1982; Butler, 1992, 1993; Nelson-Le-Gal, 1985), by giving preference to task information. However, confident of his possibilities, he will want to test his progress and the validity of the strategy used. Results concerning the post-performance success expectation confirm these assertions. For the two groups concerned (i.e., $E^-T^+PA^-$ and $E^-T^+PA^+$), the post-performance success expectation level sustains the subsequent choices. Besides, the choice of task information shows a need to clarify the requirement of the situation and the means to achieve it; this will spring essentially from subjects who feel they are in a difficult position when faced with resolving a problem (i.e., who has a low post-performance success expectation level), and who relies on the last training period to benefit from this advice. Otherwise, the choice of objective information comes from subjects who have a relatively high post-performance expectation, and evidence strong will. As said previously, it is about the verification of eventual progress and the learning strategy value adopted. However, an ego involved subject engages himself in a behaviour whose principal aim is to value his normative competence, and avoid displaying his incompetence. Consequently, this psychological state does not favour a behaviour orientation towards learning. As shown, subjects who are confident in their abilities look for normative information which should confirm their superiority feeling, and reinforce their self-esteem. On the other hand, individuals having a low perceived ability level are more frequently engaged in a strategy of self-esteem protection (e.g., Covington & Omelich, 1979) or task deprecation (e.g., Nicholls, 1989; Jagacinski & Nicholls, 1990). Some of them reject all information, others avoid task information in order to avoid admitting their

incompetence. Moreover, as stated earlier, this behaviour requires belief in the virtues of consented effort and acceptance so as to apply the advice, which is not a major sign of this psychological state. Finally, we find that, similar to the previous study, that this category of subject does not significantly reject normative information. Tests on post-performance success expectation confirm the hypotheses revealed in study 1. Some subjects from the $E^{+}T\text{-}PA^{-}$ group have not renounced demonstrating their competence, and want to know their normative performance; these individuals have a higher post-performance success expectation than those who have rejected all information; the latter think they have realised a poor performance on the course, confirming their low perceived ability. Consequently, they undervalue the task and protect themselves by avoiding confrontation with all information testifying their low competence.

Conclusion

Globally, the results obtained are in accordance with existing data (Butler, 1992, 1993). Information selection, when not imposed by the experimenter, the coach or the teacher, is not random; the subject's motivational state significantly contributes to the orientation of his behaviour towards particular information. The first study shows the process and representations of ability used to evaluate an immediate performance. Conforming with Nicholls' theory (Nicholls, 1989) we have tried to show the conceptually founded link between the nature of the involvement and the conception of the ability used. On the whole, an ego-involved subject uses normative information to estimate the value of his performance, as long as the latter level does not contain the risk of revealing a weakness. A task-involved subject uses objective information which allows him to assess the extent of his progress. The second study evidences different strategies relating to the learning revealed by the type of chosen or rejected information. Generally, an ego-involved subject is not interested in learning, even if he has tools on hand allowing him to progress and perform better; he tries primarily to situate himself in relation to others. Moreover, if he meets difficulties in this situation, he rejects all information, and notably task information which will, however, be important for him. This category of subject reveals a learned helpless psychological state. A task-involved subject will, on the contrary, choose information which will allow him to progress. If he has a low-perceived ability, he uses help at his disposal so as to progress; in a natural situation, his behaviour consists in looking for the teacher's, the coach's or the friend's help or advice. If he thinks he has realised a good course, he tends to estimate his progress and check through this means the quality of the strategy used. On the other hand, the two studies show the attraction for some subjects of various information despite persuasion to choose that was formulated by the experimenter during the two tests. This finding invites the authors to search for

procedures enabling the evaluation of the subject's expression of interest for multiple information, and to determine the psychological foundations and the motivational profile attached to such behaviours. Finally, we think that the work of Butler and the actual data reveal a new perspective when compared with the general conceptualisation of achievement motivation models and prove to be relevant in relation to the learning-motivation relationship. Relating the concepts of information treatment to a motivational approach of *selective* treatment of information could open up a promising field of research.

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Abstracts in Other Languages

Leistungsziele, wahrgenommene Fähigkeit und aktive Informationssuche

Der Zweck dieser Untersuchung war es, den Vorhersagewert der Leistungszieltheorie für die freiwillige Informationsselektion zu prüfen. In einer ersten Studie konnten 86 Personen ihre Leistung nach einem Motoriktest einschätzen. Die Ergebnisse zeigten, daß selbstorientierte Personen normative Informationen wählten, wenn sie eine hohe wahrgenommene Fähigkeit hatten, und jegliche Information ignorierten, wenn sie ihre Fähigkeiten niedrig einschätzten; aufgabenorientierte Personen wählten unabhängig von ihren wahrgenommenen Fähigkeiten objektive Informationen. In einer zweiten Studie konnten 108 Personen Informationen während einer Trainingsperiode Informationen benutzen. Die Daten bestätigten die Ergebnisse der ersten Studie für selbstorientierte Personen, während die aufgabenorientierten Personen bei geringer selbsteingeschätzter Fähigkeit Aufgabeninformationen bevorzugten und objektive Information bei hohen Einschätzungen.

Stichworte: *Leistungsziele, wahrgenommene Fähigkeit, Informationssuche*

Buts d'accomplissement, niveau d'habileté perçue et recherche active de l'information

L'objet de cette série de deux expériences était de mettre en évidence la validité prédictive de la théorie des buts d'accomplissement sur la conduite de l'individu face à l'information disponible dans une tâche d'accomplissement, et d'analyser dans quelles mesures cette attitude contribue à favoriser ou réduire ses opportunités d'apprentissage. Deux études évaluèrent l'hypothèse selon laquelle la recherche volontaire de l'information dans une situation d'accomplissement est influencée par les buts d'accomplissement préférentiellement poursuivis par le sujet, et par son niveau d'habileté perçue. Dans la première étude, 86 sujets furent invités à évaluer

leur performance à la suite d'un test moteur. Les données montrèrent que les sujets qui poursuivaient des buts d'implication de l'ego valorisaient l'information normative, et évitaient toute information s'ils possédaient une basse habileté perçue. D'un autre côté, les sujets qui poursuivaient des buts d'implication dans la tâche s'intéressaient majoritairement à l'information objective. Dans la deuxième étude, 108 sujets furent invités à choisir une information au cours d'une séquence de préparation à un test moteur. Les données confirmèrent les observations antérieures en ce qui concerne les sujets qui poursuivaient des buts d'implication de l'ego. Les sujets qui poursuivaient des buts d'implication dans la tâche s'orientèrent vers l'information sur la tâche s'il se trouvaient malhabiles, et vers l'information objective s'ils ressentaient une haute habileté perçue. Ces résultats furent interprétés au regard de la théorie des buts d'accomplissement, et confirmèrent les résultats obtenus par Butler (1992, 1993) dans le domaine des pratiques motrices.

Mots clés: Buts d'accomplissement, habileté perçue, recherche de l'information

Objetivos de logro, habilidad percibida y busqueda activa de información

El proposito de esta investigación era evaluar el valor predictivo de la teoría de los objetivos de logro en la selección voluntaria de información. En el primer estudio 68 sujetos pudieron evaluar su rendimiento tras un test motor. Los resultados mostraron que los sujetos orientados al ego escogían información normativa si tenían una alta habilidad percibida y rechazaban toda información si tenían baja habilidad. Los sujetos orientados a la tarea escogían información objetiva, independientemente de su habilidad percibida. En un segundo estudio, 108 sujetos podían utilizar información durante un periodo de entrenamiento. Los datos confirmaron los resultados anteriores para los sujetos orientados al ego y mostraron que los sujetos orientados a la tarea preferían información de la tarea si tenían una habilidad percibida baja e información objetiva si tenían alta habilidad percibida.

Palabras clave: Objetivos de logro, habilidad percibida, busqueda de información.

Целевые ориентации, осознаваемые способности и активный поиск информации

Фрэнсис Кюри, Филипп Сарразин, Жан Пьер Фамосе

Целью данного исследования явилось изучение прогностической ценности концепции целевых ориентаций ("на себя" или "на задачу") в отношении особенностей произвольного отбора информации. В первом исследовании 86 испытуемых оценивали выполнение ими моторного теста сразу после его окончания. Результаты показали, что субъекты, ориентированные "на себя", выбирали нормативную информацию, если они высоко оценивали уровень своих двигательных способностей и отклоняли любую информацию, если их самооценка двигательных способностей была невысокой. Испытуемые, ориентированные "на задачу", всегда выбирали объективную информацию, независимо от того, как они оценивали свои двигательные способности. Во втором исследовании 108 испытуемых могли использовать информацию в течение определенного тренировочного периода. Полученные данные подтвердили вывод предыдущего исследования в отношении испытуемых с ориентацией "на себя", а также показали, что спортсмены с ориентацией "на задачу" предпочитают подробную информацию о задаче, если они низко

оценивают свои двигательные способности, и объективную информацию типа обратной связи в случае высокой самооценки двигательных способностей.

Ключевые слова: целевые ориентации, осознаваемые способности, поиск информации

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